

LAKE: MINNEHONK L (VLMP 11)
TOWN: MOUNT VERNON
COUNTY: KENNEBEC

MIDAS: 5812
TRUE BASIN: 1
SAMPLE STATION: 1

WHOLE LAKE INFORMATION

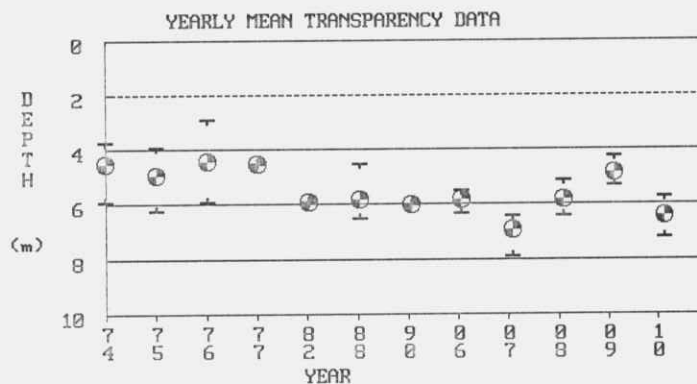
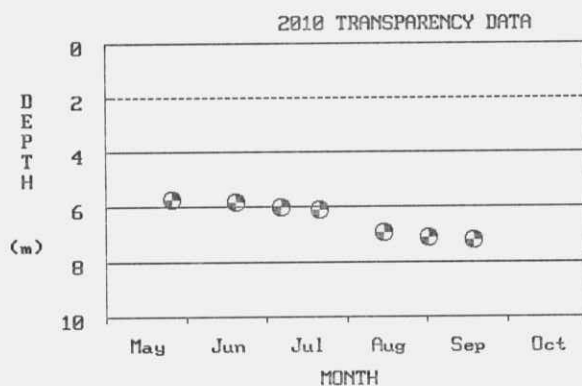
MAX. DEPTH: 22 m. (73 ft.)
MEAN DEPTH: 10 m. (32 ft.)
DELORME ATLAS #: 20
USGS QUAD: READFIELD
IFW REGION B: Belgrade Lakes (Augusta)
IFW FISH. MANAGMENT: Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 40.1 ha. (99.1 a.)
FLUSHING RATE: 5.80 flushes/yr.
VOLUME: 3700000.0 cu. m. (3001 ac.-ft.)
DIRECT DRAINAGE AREA: 4.52 sq. km. (1.75 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. MINNEHONK L has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.															
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1974	-	-	-	-	-	9	-	-	3.7	4.5	5.9	6	1.8	2.7	4.7	-	-	54	38
1975	-	-	-	-	-	7	-	-	3.9	4.9	6.2	7	1.3	2.8	4.1	-	-	49	38
1976	23	6.86	12.5	57	8	-	13	-	2.9	4.4	5.9	7	1.3	2.7	6.5	37	-	55	37
1977	-	-	-	-	-	-	7	-	4.5	4.5	4.5	1	-	-	-	-	-	-	-
1982	21	7.10	12.0	68	7	-	32	-	5.9	5.9	5.9	1	2.1	2.2	2.2	-	-	-	-
1988	-	-	-	-	-	-	-	-	4.5	5.8*	6.5	6	-	-	-	-	-	-	-
1990	30	7.18	13.5	55	7	-	-	-	6.0	6.0	6.0	1	5.9	5.9	5.9	-	-	-	-
2006	-	-	-	-	-	-	-	-	5.5	5.8	6.3	4	-	-	-	-	-	-	-
2007	15	7.43	13.4	56	6	-	-	-	6.4	6.9	7.9	4	1.3	1.3	1.3	-	-	-	-
2008	-	-	-	-	-	-	-	-	5.1	5.8	6.4	5	-	-	-	-	-	41	-
2009	-	-	-	-	-	-	-	-	4.2	4.8	5.3	5	-	-	-	-	-	50	-
2010	-	-	-	-	-	-	-	-	5.7	6.4	7.2	5	-	-	-	-	-	36	-
SUMMARY:	22	7.09	12.9	59	7	8	17	-	2.9	5.5*	7.9	12	1.3	2.9	6.5	37	-	48	38

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LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE							
	09/21/76		08/25/82		09/06/90		08/09/07	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	20.8	9.2	20.3	9.0	22.8	8.5	24.0	7.6
1.0	-	-	20.6	9.0	22.8	8.2	24.0	7.7
2.0	20.4	9.2	20.6	8.9	22.7	8.2	24.0	7.7
3.0	-	-	20.5	8.9	22.6	8.2	24.0	7.7
4.0	18.7	8.6	20.5	8.7	22.5	8.3	23.8	7.6
5.0	17.6	7.1	15.9	12.1	18.2	8.0	16.5	12.1
6.0	15.7	4.7	11.5	9.6	13.0	4.0	12.7	11.5
7.0	12.9	3.7	7.6	7.3	10.2	4.1	9.6	9.1
8.0	9.9	4.0	7.0	7.1	9.1	4.1	8.5	8.5
9.0	8.9	4.3	6.2	6.8	8.1	4.3	8.0	8.0
10.0	8.0	4.8	5.9	7.0	7.2	4.8	7.5	8.0
11.0	7.4	5.3	-	-	6.5	6.0	7.1	8.0
12.0	6.5	5.4	5.1	7.2	6.0	6.2	6.7	8.0
13.0	5.6	5.6	-	-	5.8	6.2	6.4	7.9
14.0	5.5	5.6	4.9	7.3	5.6	6.2	6.2	7.6
15.0	5.4	5.3	-	-	-	-	6.0	7.1
16.0	5.1	5.1	4.8	6.3	5.3	5.8	6.0	7.0
17.0	5.0	4.7	-	-	-	-	5.9	6.0
18.0	5.0	4.6	4.8	5.6	5.2	5.0	5.9	6.1
19.0	5.0	3.7	-	-	-	-	5.8	5.4
20.0	5.0	3.5	4.8	3.7	5.1	4.2	5.8	5.1
21.0	5.0	3.3	-	-	5.1	2.6	5.8	4.9
22.0	5.0	3.1	-	-	-	-	-	-
23.0	4.9	2.8	-	-	-	-	-	-

WATER QUALITY SUMMARY

MINNEHONK L, MOUNT VERNON

Midas: 5812, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algae blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Minnehonk Lake have been collected occasionally since 1974. During this period, 3 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Minnehonk Lake is considered to be average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Minnehonk Lake is low.

Water Quality Measures: Minnehonk Lake is a non-colored lake (average color 25 SPU) with an average SDT of 5.2m (17ft). The range of water column TP for Minnehonk Lake is 7-8 parts per billion (ppb) with an average of 7 ppb, while Chla ranges from 1.3-6.5 ppb with an average of 3.3 ppb. No recent dissolved oxygen (DO) profiles have been taken. Past profiles show no DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low, based on old data. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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